AUTHOR INDEX TO VOLUME 57

Abraham, Nader G., 409
Abreu, Patricia A.E., 311
Ahlers, Annette, 321
Alitalo, Kari, 1
Anderson, Wayne B., 647
Auszmann, J., 271
Avakian, Crystal, 290
Ayscue, Andrea, 509
Azeim, Anwarul, 432

Balduini, Cesare, 30
Bassuk, James A., 127
Belinsky, Glenn S., 351
Ben-Bassat, H., 530
Binas, Bert, 495
Bird, Ranjana P., 101
Birkle, Dale L., 599
Blaha, J. David, 599
Blanchard, D. Kay, 465
Bortell, Rita, 90
Bourke, Michael, 90
Brach, Marion A., 321
Brady, Roscoe O., 208
Brautigan, David L., 415
Brinckerhoff, Constance E., 575
Brinkmann, Albert O., 465
Broess, M., 440
Burger, Max M., 71

Camargo, Antonio C.M., 311
Canalis, Ernesto, 488
Chambers, Ann F., 680
Chen, Gung-Shen, 641
Cissel, David S., 599
Collin-Osdoby, Patricia, 399

D'Errico, John A., 680
Damm, Klaus, 465
Dasse, Kurt A., 557
Dawson, Michelle J., 39
Delany, Anne M., 488
del Peso, Luis, 141
Desbois, Christelle, 379
DeVito, William J., 290
De Vries, Luc, 630
DiBattista, John A., 619
Djeu, Julie Y., 452

Eckhoff, Christian, 575
Engel, Katrin, 321
Erdmann, Bettina, 495
Esko, Jeffrey D., 173
Esteve, Pilar, 141
Evain-Brion, Danièle, 647

Fackson, Mwale, 218
Ferro, Emer S., 311
Findik, Duygu, 12
Fleming, Honorée, 262
Folkman, M. Judah, 127
Frittitta, Lucia, 666
Fritz, Timothy A., 173
Fukamizu, Akiyoshi, 691
Fukuda, Yoshihide, 432
Fuller, Gerald M., 610

Gabbitas, Bari Y., 488
Gaestel, Matthias, 321
Gai, Xiaoxia, 701, 710
Gal, I., 530
Ge, Lynn, 331
Genge, Brian R., 218
Gerbaud, Pascale, 647
Gerstenfeld, L.C., 440
Goldfine, Ira D., 666
Gomez-García, Lourdes, 630
Graeber, Geoffrey M., 599
Grosse, Richard, 495

Hamaguchi, Michinari, 432
Hanafin, Nancy M., 362
Harris, M. Olivia, 351
Hase, Toshiharu, 120
Hatae, Toshihisa, 691
Hayakawa, Tetsuro, 432
Heinrichs, Arianne A.J., 90
Herman, Brian, 509
Herrmann, Friedhelm, 321
Hidaka, Hiroyoshi, 12
Higuchi, Carl M., 256
Hinnen, Albert, 238
Hirano, Kazuya, 371
Hockenberry, David, 509
Hoffman, Susan L., 465
Holick, Michael F., 362

Hölttä, Erkki, 1, 670
Horiguchi, Hisashi, 691
Hota, Charulata, 680
Hunag, Dan-Yang, 701
Hunnicutt, Ruthann E., 415
Hurta, Robert A.R., 543

Ikeda, Kyoji, 384
Irimura, Tatsuro, 271
Ishikawa, Yoshinori, 218
Isobe, Ken-ichi, 432
Ito, Yoshiaki, 522
Iwata, Kazushi, 619

Janes, Michael, 238
Jenster, Guido, 465
Jimenez, Benilde, 141
Jin, Fu-Sheng, 208
Jo, Hanjoong, 415
Judd, J., 271
Jullienne, A., 62

Kambayashi, Jun-ichi, 120
Kamma, Hiroshi, 691
Kanayama, Yoshitaka, 185
Kappas, Attallah, 409
Karsenty Gerard, 379
Katano, Yoshiaki, 432
Kazmi, Syed M.I., 299
Keeting, Philip E., 599
Khoury, Viviane, 280
Kleene, Ralf, 238
Klein, B.Y., 530
Koga, Yasuhiro, 432
Kostrominova, Tatiana Yu, 163
Kotoyori, Jun, 522
Kozawa, Osamu, 251, 522
Kremer, M., 271
Kroeger, Paul E., 191
Kuhns, William J., 71
Kumar, Rajiv, 392

Lacal, Juan Carlos, 141
Laferté, Suzanne, 101
Lai, Yiu-Kay, 150
Laitinen, Jens, 1, 670

Landry, Suzanne, 280
Lane, Timothy F., 127, 341
Lau, Catherine Y., 299
Lavin, Martin, 12
Lee, Yu-Chien, 150
Lelkes, Peter I., 590
Levere, Richard D., 409
Lian, Jane B., 90, 557
Liang, Guodong, 701, 710
Liang, Xiao Huan, 509
Liau, Gene, 331
Liebergall, M., 530
Lipson, Kenneth E., 701, 710
Liu, Yin-Chang, 641
Liu, Wei-Li, 641
Lockett, Stephen, 509
Lohmann, Suzane M., 647

Machwate, M., 62
Manolopoulos, Vangelis G., 590
Mao, Xianzhi, 701
Mao, Xianzhi, 710
Marie, P.J., 62
Martel-Pelletier, Johanne, 619
Matsuda, Yoichi, 691
McDonald, Jay M., 415
Meighan-Mantha, Rachel L., 423
Meissner, John D., 509
Menconi, Michael J., 557
Meyhack, Bernd, 238
Miao, Hua-Quan, 173
Misevic, Gradimir, 71
Mishima, Hiroyuki, 218
Montaner, Silvia, 141
Mori, Takesada, 120
Moukhtar, M., 62
Moyana, Terence, 101
Mungal, Salvatore, 509
Murakami, Kazuo, 691
Murata, Kohei, 120
Murguía, José R., 630
Murphy-Ullrich, Joanne E., 341
Murray, Gary J., 208

Nakashima, Izumi, 432
Neil, Teresa K., 409
Nickols, G. Allen, 399

Ogata, Etsuro, 384
Ogata, Takesaburo, 691
Oiso, Yutaka, 251, 522
Okulicz, William C., 290
Okuyama, Masaki, 120
Oliver Katharine L., 208
Osawa, Toshiaki, 271
Osdoby, Philip, 399
Oursler, M.J., 52, 271
Owen, Thomas A., 557

Pallero, Manuel A., 341
Pan, Luying, 575
Pauli, Urs, 191
Pearson, Christopher E., 280
Pelletier, Jean-Pierre, 619
Perona, Rosario, 630
Pfeifer, Gerd P., 479
Plante, Richard K., 299
Pockwinse, Shirwin, 557
Popescu, Octavian, 71
Prokopishyn, Nicole L., 101
Prystowsky, Michael B., 701, 710
Pu, Mei-yi, 432
Pulfer, Kurt, 238

Ramaschi, Giuseppe, 30
Rasmussen, K., 52
Raw, Isaias, 311
Raynaud, Françoise, 647
Rifkin, B., 271
Riggs, B.L., 52
Riva, A., 440
Rodriguez, Juan Pablo, 22
Rojansky, N., 530
Rozek, Dieter, 479

Sagara, Masashi, 691
Sage, E. Helene, 127, 341
Sakon, Masato, 120
Samet, Mark M., 590
Saris, Per, 670
Sauer, Glenn R., 218
Schlegel, Robert, 351
Schönthal, Axel, 630
Scott Persons, Kelly, 362
Shamgochian, Maureen, 290
Shigeyama, Yoichiro, 680
Shinoda, Junji, 522
Shlomai, Z., 530
Sigiyama, Fumihiro, 691
Sinigaglia, Fabiola, 30
Sistonen, Lea, 1
Somerman, Martha J., 680
Song, Qizhong, 12
Spelsberg, T.C., 52
Spitzer, Eva, 495
Stampfer, Martha R., 666
Stein, Gary S., 90, 191, 557
Stein, Janet L., 90, 191
Stone, Scot, 290
Subramaniam, M., 52
Suzuki, Atsushi, 251, 522

Takeuchi, Ken-ichi, 371
Tambourgy, Denise V., 311
Tang, Kam-Tsun, 290
Tanzer, Marvin L., 163
Taylor, Gareth R., 299
Todd, Andrea, 280
Tokuda, Haruhiko, 522
Tolan, Dean R., 423
Torti, Mauro, 30
Tournier, Sylvie, 647
Trapani, Joseph A., 39
Tsuji, Tsutomu, 271

van Driel, Roel, 465
van Steensel, Bas, 465
van Wijnen, André J., 191
Vigneri, Riccardo, 666
Visconti, Vito, 299

Wang, Weiqun, 256
Wang, Yang, 610
Watanabe, Yasuko, 522
Wen, Su-Fang, 641
Whipkey, Diana L., 599
Williams, John P., 415
Wodnicki, Pawel, 509
Wright, Kenneth L., 191
Wright, Jim A., 543
Wu, Licia N.Y., 218
Wuthier, Roy E., 218

Xia, Li, 701, 710
Xuan, Jian-Wu, 680

Yagami, Ken-ichi, 691
Yamaguchi, Masayoshi, 185
Yang, Jia-Ling, 655
Yi-Yi Lu, 655
Yost, Jeffrey C., 127

Zafarullah, Muhammad, 619
Zannis-Hadjopoulos, Maria, 280
Zhou, Lubing, 299
Zschiesche, Wolfgang, 495

SUBJECT INDEX TO VOLUME 57

1α,25-dihydroxyvitamin D_3, 362, 392
12-*O*-tetradecanoylphorbol-13-actate (TPA), 251
17B-estradiol, 599

β-plycerophosphate, 532

Aberrant regulation, 543
Adenovirus early 1, 691
Adenylyl cyclase, 590
Adhesion, 30
  molecule, 371
  proteoglycan (AP), 71
Adhesive proteins, 30
Aggregation, 30, 71
Alkaline phosphatase, 532
Angiogenesis, 127
Angiotensin ii, 522
Anti-inflammation, 299
Aortic smooth muscle cells, 522
AP-1, 630
Apoptosis, 509
Arachidonic acid release, 495
Azoxymethane-induced rat colon tumors, 101

Basic fibroblast growth factor, 311
bcl-2, 509
Berkeley bodies, 238
Biomarkers, 256
Biosynthesis, 610
Bone, 488
  extracellular matrix, 379
  remodeling, 384, 399
  specific, 90
Breast cancer, 666
Budding, 262
Butyrate, 331

C127 cell, 191
Ca and P mapping, 218
Caffeine, 351
Calavaria, 62
Calbindin, 392
Calcium
  binding protein, 185
  pump, 392
  transport, 392
Calcospherites, 218
Calyculin A, 120
Cancer-associated hypercalcemia, 384
Cardiac assist device, 557
Catalase, 655
cDNA, 423
  cloning, 371
Cell
  adhesion, 341, 680
  cycle, 331, 479, 641, 351, 670, 701
  culture, 218
  differentiation, 379
  division, 351
  growth, 141
  migratyion, 680
  motility, 71
  proliferation, 379
Cervical carcinoma, 509
c-fos, 52, 62, 630
c-Ha-*ras*^{Val12} oncogene, 1
Chemotaxis, 680
Chick calvaria, 440
Chinese hamster ovary cell mutants, 173
Choline kinase, 141
Chondrocytes, 218
Chromatin structure, 1, 670
Chromium(VI) uptake, 655
Chromosome, 191
cis-hydroxyproline, 532
Clustering, 30
Colony-stimulating factor, 452
Colorectal cancer, 256
Concanavalin A (ConA), 163
C-terminal domain, 465
Cyclic AMP (cAMP), 311, 331, 590
  protein kinase II (cAMP-PKII), 647
Cytokines, 399
Cytoskeletal systems, 150
Cytotoxicity, 452, 655

Deletion analysis, 280
Dephosphorylation, 415
Developmental, 90
Dexamethasone, 532
Differentiation, 62, 262
Disulfide bridges, 465
DNA
  binding, 299
  binding domain, 465
  fragmentation, 12
  protein(s), 701, 711
  sequence, 423
Domes, 262

E1 region gene, 691
Early response gene, 479
EC 3.4.22.15, 311
EF-hand, 127
Endogenous TGFα, 495
Endometrium, 262
Endooligopeptidase, 311
Endothelial (EC) cells, 31, 127, 331, 590
  heterogeneity, 590
Enzyme(s), 208
  activity, 12
Episomal replication, 280
Estrogen, 271
Explant culture, 495
Extracellular matrix, 127

Fatty acid metabolism, 599
Femur, 62
Fetal calf serum, 22
Fibroblasts, 488, 362, 575
Focal adhesions, 341
Free radicals, 399

G-proteins, 590
Gas chromatography, 599
Gaucher's disease, 208
Gel mobility shift assay, 575
Gene
  expression, 185, 331, 670
  replication, 670
  regulation, 384
gla protein, 379
Glucocorticoid, 488, 522
Glutathione (GSH), 655
  S-transferase (GST), 655
Glycosaminoglycans, 173
Glycosylation, 163, 610
Golgi apparatus, 238

gp130, 610
Growth
  arrest, 238, 331
  factors, 141

H4 gene, 191
Heart, 409
Heat shock, 321
  protein 70 (HSC70), 150
  response, 150
Heme, 409
  oxygenase, 409
Hemicholinium-3, 141
Hemocompatibility, 557
Hep62, 711
Heparin, 173
Heparinase, 173
Heterodimer, 575
$HgCl_2$, 432
Histone H1°, 1
Histone gene transcription, 191
HL-60 cells, 39
Homeodomain protein, 90
Human
  colon cancer cell lines, 101
  papillomavirus (HPV), 509
  renin promoter, 691
  synovial fibroblasts, 619

IFI 16 gene, 39
Immunoprecipitation, 610
Immunosuppression, 299
In vivo footprinting, 479
In vitro replication, 280
Inhibition of Functional differentiation, 495
Inhibitory protein κB (IκB), 299
Insulin, 415, 666
  receptor, 415, 666
Integrin, 341, 371
Interaction, 465
Interferon-gamma (IFN-γ), 452
  inducibility, 39
Interferons, 39
Interleukin-1, 619
Internal pH, 630
Ionizing radiation, 12
Ishikawa cells, 262

jun-b, 52

Keratinocytes, 362

Laminin, 163
Lectin-affinity chromatography, 101
Lectins, 163
Levamisole, 532
Lymphoid cells, 12
Lysosomes, 208

Malignant transformation, 666
Malonate, 532
MAP kinase, 141
Matrix
  metalloprotein-1, 575
  vesicles, 218
Membrane glycoproteins, 30
Metabolic inhibitors, 495
Metastasis, 543
Mineral deposit, 440
Mineralization, 218
Minimal origin, 280
Mitogen activated protein kinases, 321
Mobility shift, 711
Monolayer, 262
mRNA, 62, 409
  stability, 641
Mucosa, 256
myc genes, 691
Myoblasts, 163
Myofibroblast, 557

Necrosis, 452
Neuroectodermal tumor, 691
Nitric oxide, 399
Northern blot analysis, 185
Nuclear
  factor κB (NFκB), 299
  localization, 465
  matrix, 465
  matrix acceptors, 465
  protein, 39
Nucleosomal repeat length, 1
Nude rat model, 384

Odontoblast, 379
Oncodevelopmental antigen, 101
Opioid peptides, 311
ors, 280
Osteoblast, 52, 62, 90, 251, 379, 399
Osteocalcin, 90, 271, 379, 399, 440
Osteogenesis, 62
Osteopontin (OPN), 440, 680
Osteoporosis, 488
Overexpression, 238

p53, 509
$p56^{lck}$, 432
Parathyroid hormone-related peptide (PTHRP), 384
PC12 cells, 311
Phosphatidylinositol, 599
Phosphoamino acid analysis, 120
Phosphodiesterase, 590
Phosphoinositide, 522
Phospholipase A_2, 495
Phospholipase D, 141, 251
Phosphorylation, 120, 647
Phosphorylcholine, 141
Phosphotyrosine, 351
Plasmid copy numbers 238
Platelet, 120
Polarization, 262
Polyamines, 256
Polylysine, 415
Polyurethanes, 557
Progesterone, 262
Programmed cell death, 12
Proliferating cell nuclear antigen (PCNA), 641
Proliferation, 62, 256
Promoter, 701
  regulation, 52
Prostaglandin E2, 619
Protein
  kinase C, 251, 522
  kinase C (PKC) activity, 362
  phosphatase, 120
  phosphoryaltion, 351
Proteoglycan(s), 22, 173
  secretion, 62
Pseudointima, 557
Psoriasis, 647
Purine nucleotides, 452
Purinoceptor, 452
Pyrrolidine dithiocarbamate (PDTC), 299

Quantitative polymerase chain reaction (QPCR), 299

Raf-1, 141
Receptor-binding, 173
Recombinant proteins, 680
Redox, 432
Regenerating rat liver, 185
Regucalcin, 185
Regulatory subunit IIa (RIIa), 647

Replacement therapy, 208
Replication origin, 280
Resorption, 271
Retinoic acid, 647
RGD integrin binding sequence, 680
Ribonucleotide reductase, 543
RNA stability, 488
RNase protection, 423

S-phase, 701
Secretion, 238
Sertoli cells, 22
Serum, 22
  stimulation, 1, 479, 670
  deprivation, 641
Signal
  complex, 432
  transduction, 30
Site-directed mutagenesis, 680, 701
Small heat-shock proteins, 321
Smooth muscle cell, 331
Sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE), 71
SPARC, 341
Sphingsine, 362
Steroid receptors, 465
Stimulation of DNA synthesis, 495
Sulfate
  deprived cells, 71
  uptake, 655
Sulfation, 22

Talin, 120
Tepozalin, 299
Thermotolerance, 150
Tin, 409
Tissue distribution, 371
Tissue inhibitor of metalloproteases-1 (TIMP-1), 619
Titratable transcription factors, 191
TK$^-$ts13, 711
Transcativation, 299
Transcription, 465, 701, 711
  factors, 479
  regulation, 90
Transfection, 575
Transformation, 630
Transforming growth factor-β (TGF-β), 52
Transforming growth factor β_1 (TGF-β_1), 543
Tumor necrosis factor-α (TNF-α), 321
Type 1 phosphatase, 415
Type 2 chain blood group A and B determinants, 101
Tyrosine
  kinase(s), 30, 251, 415, 666
  phosphorylation, 432

Vascular biology, 127
Vasopressin, 522
Vectorial transport, 238
Vimentin, 150
Vinculin, 341
Vitamin D_3, 440
Vitamin D-receptor, 392
VLA (very large antigen), 371

WI38, 711

Yeast, 238